

Title (en)  
METHOD FOR UWB TRANSACTION AND ELECTRONIC DEVICE THEREFOR

Title (de)  
VERFAHREN ZUR UWB-TRANSAKTION UND ELEKTRONISCHE VORRICHTUNG DAFÜR

Title (fr)  
PROCÉDÉ DE TRANSACTION ULB ET DISPOSITIF ÉLECTRONIQUE ASSOCIÉ

Publication  
**EP 3808116 A4 20210811 (EN)**

Application  
**EP 19856704 A 20190830**

Priority

- KR 20180107359 A 20180907
- KR 20180167912 A 20181221
- KR 20190081494 A 20190705
- KR 20190091278 A 20190726
- KR 2019011146 W 20190830

Abstract (en)  
[origin: EP3944588A1] An electronic device includes communication circuitry configured to perform short-range wireless communication, ultra-wideband (UWB) communication circuitry configured to perform UWB communication, a secure element comprising a secure data storage configured to provide an execution environment isolated from an operating system (OS) of the electronic device, and a processor. The UWB communication circuitry performs ranging with an external electronic device, receives a first UWB signal including a medium access control (MAC) header and a MAC payload from the external electronic device, and determines, based at least on MAC payload information included in the MAC payload, whether to forward information included in the MAC payload information element to the secure element.

IPC 8 full level  
**H04W 4/80** (2018.01); **G06F 21/44** (2013.01); **G06F 21/53** (2013.01); **H04B 1/7163** (2011.01); **H04L 29/06** (2006.01); **H04W 12/06** (2021.01); **H04W 12/08** (2021.01); **H04W 88/06** (2009.01)

CPC (source: EP KR)  
**G06F 21/44** (2013.01 - EP); **G06F 21/53** (2013.01 - EP); **H04B 1/7163** (2013.01 - EP); **H04L 63/0853** (2013.01 - EP); **H04L 63/107** (2013.01 - EP); **H04W 4/023** (2013.01 - EP); **H04W 4/80** (2018.02 - KR); **H04W 12/06** (2013.01 - EP); **H04W 12/08** (2013.01 - KR); **H04W 88/06** (2013.01 - KR); **G06F 2221/2111** (2013.01 - EP); **G07C 9/29** (2020.01 - EP); **H04W 4/40** (2018.02 - EP); **H04W 4/80** (2018.02 - EP)

Citation (search report)

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- [A] WO 2013004754 A2 20130110 - GEMALTO SA [FR], et al
- [A] MOKOLE E L ET AL: "Introduction to ultrawideband theory/technology/systems", 2016 INTERNATIONAL CONFERENCE ON ELECTROMAGNETICS IN ADVANCED APPLICATIONS (ICEAA), IEEE, 19 September 2016 (2016-09-19), pages 768 - 771, XP032993085, DOI: 10.1109/ICEAA.2016.7731512
- [Y] MOHD SHAHRIL IZUAN MOHD ZIN ET AL: "A Review of UWB MAC Protocols", TELECOMMUNICATIONS (AICT), 2010 SIXTH ADVANCED INTERNATIONAL CONFERENCE ON, IEEE, PISCATAWAY, NJ, USA, 9 May 2010 (2010-05-09), pages 526 - 534, XP031693055, ISBN: 978-1-4244-6748-8
- See also references of WO 2020050555A1

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)  
BA ME

DOCDB simple family (publication)  
**EP 3944588 A1 20220126**; **EP 3944588 B1 20230726**; **EP 3944588 C0 20230726**; AU 2019337074 A1 20210513; AU 2019337074 A2 20210624; AU 2019337074 B2 20240725; CN 112655230 A 20210413; CN 112655230 B 20240123; EP 3808116 A1 20210421; EP 3808116 A4 20210811; EP 3808116 B1 20230628; EP 3808116 C0 20230628; EP 4236382 A2 20230830; EP 4236382 A3 20231025; EP 4236383 A2 20230830; EP 4236383 A3 20231101; EP 4236383 B1 20240724; ES 2953321 T3 20231110; ES 2961700 T3 20240313; KR 20200028809 A 20200317

DOCDB simple family (application)  
**EP 21195846 A 20190830**; AU 2019337074 A 20190830; CN 201980056279 A 20190830; EP 19856704 A 20190830; EP 23174270 A 20190830; EP 23179715 A 20190830; ES 19856704 T 20190830; ES 21195846 T 20190830; KR 20180167912 A 20181221